

Tennessee Pollution Prevention Partnership Success Story



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Eliminating Hazardous Waste

The Member

Bridgestone/Firestone North American Tire, LLC, (BFNT) Warren County Plant began manufacturing steel-belted radial tires for truck and bus applications in 1990. The plant employs approximately 1000 team members involved in producing thousands of these tires each day. BFNT company-wide has been dedicated to environmental excellence and continuous improvement as demonstrated by all of our North American tire plants achieving ISO 14001 certification by the year 2000. BFNT Warren County is also a Charter Member of the EPA National Environmental Performance Track. We continue to look for opportunities to eliminate and reduce waste, prevent pollution, and conserve natural resources.



The Story

The manufacture of tires involves mixing raw materials into rubber compounds; cutting and forming the different compounds into several components, such as the tread, belts, innerliner, sidewalls, and beads; assembling these components as a “green” or uncured tire; and then curing the tire under heat and pressure.

During the building process various components of the tire are held together with cement. One of the constituents in the cement causes the waste to be classified as hazardous due to flammability. Studies and trials were conducted to determine how to reduce cement waste. First, the cement applicators were

modified. After equipment modifications were made, the focus of waste reduction shifted to changes in work practices and procedures.

With the focus on ISO14001 in 1998 and certification January 1999, all personnel were made aware of the environmental aspects of their jobs. The Operating Technicians began to line the catch pan under the cementing operations with a piece of rubber stock. Any cement that ran off this rubber liner was returned to the cement tank for reuse. The Operating Technicians replace this rubber liner with a new piece of rubber stock each shift. With the approval of Technical Services and Quality, the rubber liner was found to be reusable in the process.

The Success

It is the philosophy of BFNT Warren County Plant that our Operating and Engineering Technicians are our number one resource and advantage, and by including them day-to-day in our environmental affairs we will ensure environmental excellence. Our focus on cement waste reduction resulted in the elimination of our largest hazardous waste stream and enabled us to achieve conditionally exempt status. This success was achieved with essentially no cost to the plant and provided significant cost savings in hazardous waste handling, transportation, disposal, and liabilities.

The Pollution Prevented

BFNT Warren County Plant averaged several tons of hazardous waste in the years prior to this initiative. In 1999 we totally eliminated our cement waste and now generate less than 1 ton of hazardous waste annually. This saves us about \$840 per ton in hazardous waste disposal costs. This was achieved while annually increasing production! We continue to strive to eliminate hazardous waste generation completely, a zero waste goal.